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## The Genus *Callidiellum* in North America

(Coleoptera : Cerambycidae)

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The genus *Callidiellum* Linsley (1940) has been known from North America previously by but a single species, *C. cupressi* (Van Dyke), the type of the genus. Two additional species occur in eastern Asia, *C. rufipenne* (Motschulsky) in Japan and adjacent areas, and *C. villosulum* (Fairmaire) in eastern China (Linsley, 1958). All three are associated with trees of the Taxodiaceae-Cupressaceae, *Callidiellum cupressi* with Sargent cypress, *Cupressus sargentii* Jeps. (or *goveniana* Gord.), *Callidiellum rufipenne* with *Cryptomeria japonica* D. Don. (principally) and *Chamaecyparis obtusa* Sieb. Zuce. and *Callidiellum villosulum* with *Cunninghamia lanceolata* Hook. This type of discontinuous distributional relationship between East Asiatic-Western North American biotic elements is evident among genera in several tribes of Cerambycidae (Linsley, 1939b, 1942, 1958, 1959, 1961, 1963). Most of these were presumably associated with the Arcto-Tertiary Geoflora (Axelrod, 1960). In view of the biogeographic significance of this discontinuously distributed host-specific group, we offer a description of a new species of *Callidiellum* from Arizona associated with *Cupressus glabra* Sudw.

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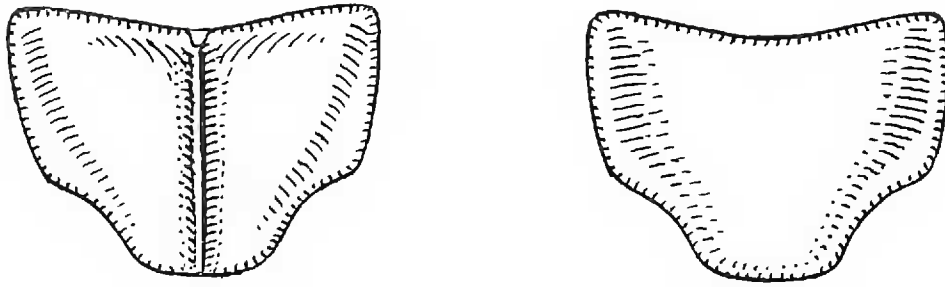


Fig. 1. Mesonotal stridulatory plates of *Callidiellum virescens* (left) and *C. cupressi* (right).

### *Callidiellum virescens* Chemsak & Linsley, new species

MALE.—Form moderate-sized, depressed; color rufous, antennae except scape, femora at base, and mandibles often dark, elytra metallic greenish (usually) to bluish. Head moderately, irregularly punctured on vertex; pubescence fine, erect, of various lengths; antennae extending about two segments beyond body, scape usually pale, sparsely punctured, remaining segments dark or pale, moderately clothed with erect setae and short depressed pubescence. Pronotum wider than long, sides subangulate, apex abruptly, narrowly constricted, base less abruptly constricted; disk with three glabrous calluses at base joining to form a small omega, remainder of disk coarsely, irregularly punctured with interspaces microsculptured; pubescence moderate, long, erect; stridulatory plate of mesonotum with a median longitudinal depression; prosternum with a broad band of coarse deep punctures extending across width, anterior and posterior margins with glabrous, rugulose bands, prosternal process broad, concave. Elytra less than  $2\frac{1}{2}$  times as long as broad; surface coarsely, confluent, cribrately punctate, each elytron indistinctly bicostate; pubescence dark, short and subdepressed with numerous long erect hairs interspersed; apices rounded. Legs with femora strongly clavate, moderately pubescent. Abdomen vaguely punctate, moderately pubescent; apex of last sternite subtruncate. Length, 9–11 mm.

FEMALE.—Antennae shorter than elytra, scape less robust. Pronotum lacking discal calluses, surface finely, sparsely punctate; prosternum shallowly rugulose, not punctate, prosternal process narrow. Abdomen with apex of last sternite rounded. Length, 10–11 mm.

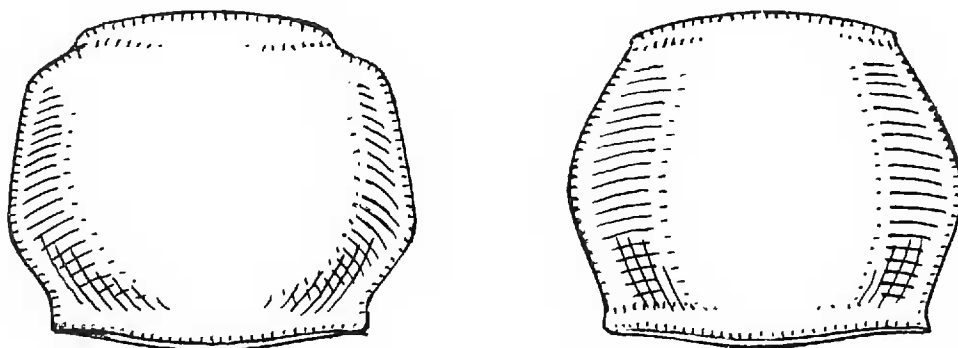


Fig. 2. Pronotal shapes of females of *Callidiellum virescens* (left) and *C. cupressi* (right).

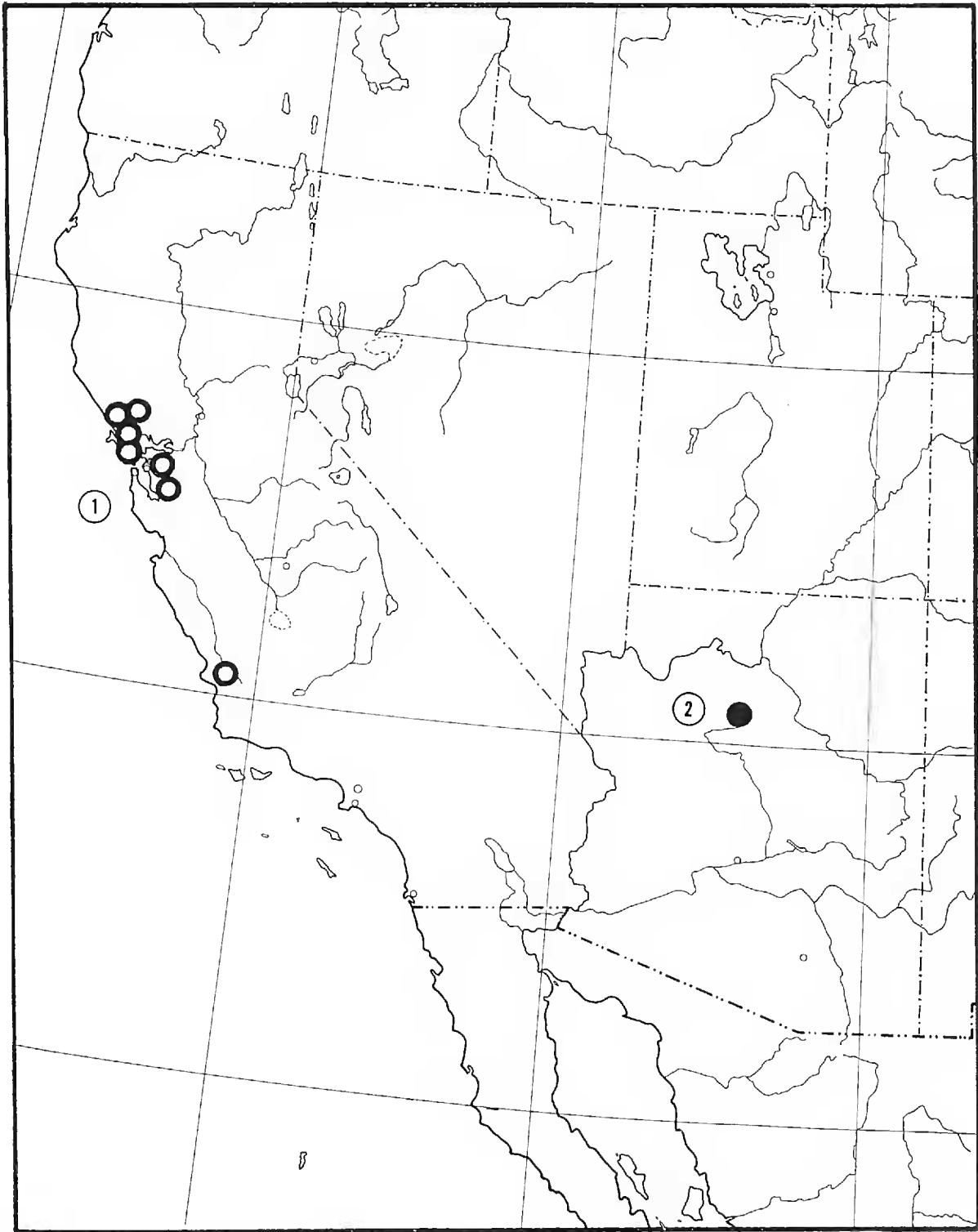


Fig. 3. Known occurrence of (1) *Callidiellum cupressi* and (2) *C. virescens*.

*Holotype male*, allotype female (California Academy of Sciences) and 13 paratypes (seven males, six females) reared from *Cupressus glabra* collected near MANZANITA FOREST CAMP, OAK CREEK CANYON, COCONINO COUNTY, ARIZONA, 8 September 1964 (C. W. O'Brien). Some specimens emerged in April 1965; others were collected from pupal chambers in December 1965.

This species may be distinguished from *C. cupressi* (Van Dyke) by

the distinct depression in the stridulatory plate (Fig. 1), the shape of the pronotum (Fig. 2), and by the usually greenish elytra.

Although the structural characters which distinguish *Callidiellum cupressi* and *C. virescens* are constant throughout the series of each which is before us, nevertheless the two give every evidence of being very closely related. Yet the species as now known are very widely separated geographically. *C. cupressi* occurs in the coastal mountain ranges of central California from Lake County to San Luis Obispo County (Fig. 3) attached to *Cupressus sargentii* (or *goveniana*) which usually grows on or near serpentine ridges. *C. virescens* was found in Oak Creek Canyon, south of Flagstaff in north central Arizona on *Cupressus glabra*. These localities are separated by from 500–700 miles of such ecologically diverse terrain that any recent contiguity of the populations could scarcely have been possible. This kind of discontinuity is evident in the genus *Atimia* (Linsley, 1939a, 1962) which is also restricted to host plants in the Taxodiaceae–Cupressaceae and in that section of *Callidium* (Linsley, 1964) which is attached to this same group of plants. However, both of these have more numerous species and involve several host genera. It is possible, of course, that this may yet prove to be true of *Callidiellum*, in North America, as it is in Asia.

The larval habits of *Callidiellum cupressi* have been reported by Chemsak and Powell (1964). As would be expected, those of *C. virescens* are quite similar and will not be described in detail. However, it should be mentioned that the infested branches of *Cupressus glabra* (ranging in diameter from 1 to 2 inches) were also heavily attacked by two species of bark beetles, *Phloeosinus arizonicus* Blackman and *P. spinosus* Blackman. In the rearing cages, *Callidiellum* larvae, feeding just beneath the bark, were responsible for a high mortality among the scolytids.

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INDEX LITTERATURAE ENTOMOLOGICAE, SERIES II: Die Welt-Literatur über die gesamte Entomologie von 1864 bis 1900. Band I, A–E. Von Walter Derksen und Ursula Scheiding. Pp. I–XII + 1–697. Published by the Deutschen Akademie der Landwirtschaftswissenschaften zu Berlin, Josef-Nawrocki-Strasse 10, Berlin-Friedrichshagen, Deutsche Demokratische Republik, 1963. Price 55 DM., or \$13.00 U.S. direct from the publisher.

The invaluable Series I of this work (still available at a reasonable price from the above address) was by Walter Horn and Sigmund Schenkling. In 1426 octavo pages in 4 volumes, 1928–29, it listed the entomological papers of the world up to the end of 1863. The Series II is in quarto size, and because of better contrast in type faces and an indented two-column arrangement, is clearer at a glance and easier to use. The items are not numbered, but it is expected there will be some 90,000 titles in the 4 quarto volumes, more than three times the number in Horn and Schenkling. A fifth volume will have a subject index and list of the journals searched.

It is a real pleasure to browse in this first volume. The coverage is amazing, and each reference is complete in itself, while an attempt has been made to give them in correct chronological order for each author. Almost any taxonomist will find titles new to him in his own specialty. Checking the listing for the late F. E. Blaisdell, Sr., against his own numbered and bound set of his papers, one finds 6 by him for the period covered, which he had failed to recall and include in his personal set of publications! One has been missed (Hints about killing Lepidoptera. *West American Scientist*, 6, 6, April 1889). This may not be a typical case, but it is indicative of the care taken in preparing the work. Perhaps the only criticism is of the poor quality of the paper used. Even so, it is certainly worth the price, and highly recommended.—HUGH B. LEECH, *California Academy of Sciences, San Francisco.*